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| 10/768,333 | 01/30/2004 | Young-Hoon Yoo | 8054-34 (LW9064US/HJ) | 6528 |
| 22150 | 7590 | 01/30/2007 | | |
| F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797 | | | EXAMINER TON, MINH TOAN T | |
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| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/768,333

Applicant(s)

YOO ET AL.

Examiner

Toan Ton

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 70-97 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 70-80, 82-97 is/are rejected.
- 7) ☒ Claim(s) 81 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 70-72 and 74-80 are rejected under 35 U.S.C. 102(b) as being anticipated by Tani (US 6392735).

Tani discloses a liquid crystal display device comprising: a first substrate; a common electrode formed over the first substrate; a second substrate disposed opposite the first substrate; and a common voltage applying member that applies a common voltage to the common electrode and that maintains a cell gap between the first substrate and the second substrate, the common voltage-applying member comprising an insulator 22' and a conductor formed over the insulator (see at least Figure 7), wherein the common voltage applying member is disposed between a first peripheral area of the first substrate and a second peripheral area of the second substrate. Here, the (first/second) peripheral area is interpreted as an arbitrary area of the (first/second) substrate since no particular definition of the peripheral area was given the claims.

Tani discloses the liquid crystal display device comprising a liquid crystal layer formed between the first substrate and the second substrate.

Tani discloses the liquid crystal display device comprising the common electrode formed of the same material as the conductor (see at least Figure 7, element 23).

Tani discloses the liquid crystal display device comprising a black matrix 21 formed over the first substrate, a color filter 22R formed in openings of the black matrix, wherein the

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common electrode is formed over the black matrix and the color filter.

Tani discloses liquid crystal display device comprising the color filter (22, 22', 22'') made of the same material as the insulator.

Tani discloses the liquid crystal display device comprising a red color filter 22, a green color filter 22' and a blue color filter 22'', each of the red, green and blue color filters being formed in a respective opening of the black matrix 21.

Tani discloses the liquid crystal display device comprising a plurality of gate bus lines formed over the second substrate; a plurality of data bus lines extending perpendicular to the plurality of gate bus lines; a plurality of gate electrodes extending from the plurality of gate bus lines; and a plurality of source electrodes extending from the plurality of data bus lines, wherein the plurality of gate electrodes and the plurality of source electrodes form a plurality of thin film transistors. Tani also discloses the liquid crystal display device comprising a plurality of pixel electrodes formed over the second substrate, each of the plurality of pixel electrodes being electrically connected to a respective one of the plurality of drain electrodes.

Tani discloses the display device comprising a planarizing layer formed over the first substrate (see at least Figure 7).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 73 and 82-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tani as applied to claims 70-72 and 74-80 above.

It is known and a common goal in the art to minimize components/manufacturing steps accomplished by eliminating extra layers/steps for advantages such as cost-reduction. Forming the pixel electrodes with the same material as the conductor would yield advantages such as cost-reduction, as it is known and a common goal in the art. Thus, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to form the pixel electrodes with the same material as the conductor for yielding advantages such as cost-reduction, as it is known and a common goal in the art.

Forming the color filter on either substrate appears simply as at least obvious variations (i.e., not patentably distinct) to one another. Thus, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to form the color filter on either substrate appears simply as at least obvious variations (i.e., not patentably distinct) to one another, for producing a color display device.

The use of spacers is common and known in the art for achieving advantages such as maintaining a constant gap between the substrates. Tani discloses the color filters disposed between the substrates in the manner of the spacing structure. Further, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to form the color filters with the same material as the insulator for advantages such as cost-reduction, as it is known and a common goal in the art, while maintaining the constant gap between the substrates.

Per claim 94, Tani discloses the liquid crystal display device comprising the common electrode and the conductor being the same element (see at least Figure 7, element 23).

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However, it has been held that making things separable would have been at least obvious to one of ordinary skill in the art. See at least *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). Thus, it would have been at least obvious to one of ordinary skill in the art at the time invention was made to employ the common electrode and the conductor separable, as at least functional equivalent (i.e., not patentably distinct) to the common electrode and the conductor being the same element.

Response to Arguments

3. Applicant's arguments filed 11/03/06 have been fully considered but they are not persuasive.

Applicant's arguments are as follow:

(1) Tani fails to disclose common voltage applying member disposed between a first peripheral area of a first substrate and a second peripheral area of a second substrate, but rather discloses it between display areas.

(2) Tani fails to disclose a black matrix formed over a common electrode and a concavo-convex portion of the conductor that is in contact with a corresponding concavo-convex portion of the common electrode.

Examiner's responses to Applicant's arguments are as follow:

(1) The (first/second) peripheral area is interpreted as an arbitrary area of the (first/second) substrate since no particular definition of the peripheral area was given the claims, e.g., outside the display areas as argued by Applicant in the previous response.

It is noted that the features upon which applicant relies (i.e., the peripheral area of the first/substrate being outside the display areas) are not recited in the rejected claim(s). Although

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the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(2) Tani discloses a black matrix (e.g., 21) formed over a common electrode (e.g., 23).

Tani discloses the liquid crystal display device comprising the common electrode and the conductor being the same element (see at least Figure 7, element 23). However, it has been held that making things separable would have been at least obvious to one of ordinary skill in the art. See at least *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). Thus, it would have been at least obvious to one of ordinary skill in the art at the time invention was made to employ the common electrode and the conductor separable (e.g., a concavo-convex portion of the conductor that is in contact with a corresponding concavo-convex portion of the common electrode), as at least functional equivalent (i.e., not patentably distinct) to the common electrode and the conductor being the same element.

Allowable Subject Matter

4. Claim 81 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 20, 2007


TOANTON
PATENT EXAMINER